

What is claimed is:

1. An optical recording medium that includes a phase change recording layer where reversible phase changes  
5 between a crystal phase and an amorphous phase are used,  
wherein the recording layer includes at least Sb, Mn, and Te and, in a state corresponding to the crystal phase, has a structure where one diffracted ray is detected by X-ray diffraction as being present in each  
10 of three spacings ( $\text{\AA}$ ) of  $3.10 \pm 0.03$ ,  $2.25 \pm 0.03$ , and  $2.15 \pm 0.03$ , in a range of between 3.13 and 2.12 spacing inclusive, with diffracted rays not being detected in other ranges within the 3.13 to 2.12 spacing range.
- 15 2. An optical recording medium according to Claim 1,  
wherein when indexing as a hexagonal lattice is performed in a state corresponding to the crystal phase, the recording layer has a structure where a lattice plane corresponding to the diffracted ray  
20 present in a range of the  $3.10 \pm 0.03$  spacing is capable of being indexed as a hexagonal (012) plane, a lattice plane corresponding to the diffracted ray present in a range of the  $2.25 \pm 0.03$  spacing is capable of being indexed as a hexagonal (104) plane, and a lattice plane  
25 corresponding to the diffracted ray present in a range of the  $2.15 \pm 0.03$  spacing is capable of being indexed as a hexagonal (110) plane.
3. An optical recording medium that includes a phase  
30 change recording layer where reversible phase changes between a crystal phase and an amorphous phase are used,  
wherein when indexing has been performed for a hexagonal lattice in a state corresponding to the crystal phase, the recording layer has a structure  
35 where an axial ratio  $c/a$  of a  $c$  axis length to an  $a$

axis length is between 2.558 and 2.676 inclusive.

4. An optical recording medium according to any of Claims 1 to 3, wherein in the state corresponding to  
5 the crystal phase, the recording layer is constructed of a single phase with an A7 structure.